

METHOD FOR ISOLATING POLYPHENYLENE ETHER POLYMER

RESINS FROM SOLUTION

ABSTRACT OF THE DISCLOSURE

A method of removing substantially all solvent from a solution containing a polyphenylene ether polymer resin with little by-product formation (less than 250 ppm) is provided. The method employs a wiped thin film evaporator with a cylindrical heating chamber operating under conditions that satisfy the relationships defined by Equations I and II.

$$5.3 * 10^{24} \text{ RL } \delta \exp^{(-24123/T)} / m < C \quad \text{I}$$

$$100 - (4960 \text{ AP} / T_m) < C \quad \text{II};$$

Yields are maximized wherein values for feed rate (m) and percent solids (C) are selected to provide a maximum value for the output, Q, determined from the equation $m * C = Q$ and the melt viscosity of the polyphenylene ether product is less than 50,000 centipoise at the operating temperature of the cylindrical heating chamber.